

# **EXHIBIT B**

## **OMNIBUS BROWN DECLARATION**

HIGHLY CONFIDENTIAL

1 UNITED STATES DISTRICT COURT  
2 NORTHERN DISTRICT OF CALIFORNIA, SAN JOSE DIVISION

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5 IN RE: HIGH-TECH EMPLOYEE )  
6 ANTITRUST LITIGATION ) No. 11-CV-2509-LHK

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9 HIGHLY CONFIDENTIAL

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11 VIDEOTAPED DEPOSITION OF EDWARD LEAMER  
12 San Francisco, California  
13 Friday, October 26, 2012  
14 Volume I

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20 Reported by:  
21 ASHLEY SOEVYN  
22 CSR No. 12019  
23 Job No. 1545691

24  
25 PAGES 1 - 476

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1 Q. Compensation for job titles. 12:35:14

2 A. But there are title indicators in here, so 12:35:15

3 that's going to absorb everything that's title 12:35:19

4 specific. So the thing about that coefficient on 12:35:21

5 that title indicator, it's going to be likely the 12:35:23

6 average compensation within that title adjusted for 12:35:24

7 these other variables. 12:35:24

8 Q. Are the coefficients in your analysis the 12:35:31

9 same year to year? 12:35:33

10 A. No, they are not. 12:35:35

11 Q. So what conclusion do you draw from that? 12:35:37

12 A. Well, their conclusion is that they're 12:35:40

13 similar. 12:35:43

14 Q. By -- 12:35:46

15 A. Similar enough to suggest that there's a 12:35:47

16 fairly rigid salary structure in place on a 12:35:49

17 year-by-year basis. 12:35:52

18 Q. Similar in a statistic -- statistically 12:35:55

19 significant way? 12:35:57

20 A. I have not explored that possibility. 12:35:59

21 Q. Haven't tested that, have you? 12:36:01

22 A. No. 12:36:02

23 Q. So you just eyeballed it? 12:36:03

24 A. I guess that's correct. 12:36:14

25 Q. Now, there is a way to test that, isn't 12:36:18

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1 draw that conclusion, correct? 12:37:28

2 A. I'm -- I'm -- what paragraph are you 12:37:30

3 referring to? 12:37:31

4 Q. 130. 12:37:32

5 A. Yeah. 12:37:34

6 Q. Third sentence. 12:37:34

7 A. I -- I -- I did not make any formal attempt 12:37:39

8 to determine their instability over time. I used my 12:37:42

9 wisdom to explore the coefficients and came to the 12:37:45

10 conclusion that variability was not consequential. 12:37:53

11 Q. You eye -- you eyeballed it? 12:37:56

12 MR. GLACKIN: I'm sorry, he wasn't 12:37:57

13 finished. 12:37:57

14 THE WITNESS: And that additional test were 12:37:59

15 carried out in this hypothesis testing that you 12:38:01

16 described, unless it's done in a way that deals with 12:38:05

17 consequentiality, it's not going to be informative 12:38:09

18 to the task that I was assigned. 12:38:15

19 BY MR. PICKETT: 12:38:18

20 Q. Right. So -- so you eyeballed them, 12:38:18

21 correct? 12:38:19

22 MR. GLACKIN: Objection. 12:38:19

23 THE WITNESS: I examined the coefficients 12:38:20

24 to see if they were what I regarded to be major 12:38:22

25 changes in the structure over time. And in order to 12:38:26

1	which one clusters their observations.	15:31:22
2	Q. And do you think that your analysis is	15:31:25
3	subject to that criticism?	15:31:27
4	MR. GLACKIN: Objection.	15:31:30
5	THE WITNESS: Well, maybe I misunderstood.	15:31:31
6	I'm not sure what clustering standard -- clustering	15:31:32
7	standard errors are.	15:31:34
8	BY MR. PICKETT:	15:31:35
9	Q. So you -- you don't think -- well, let me	15:31:35
10	go back. I'll reask the question. Are you familiar	15:31:37
11	with the term "clustering standard error"?	15:31:41
12	A. Well, I know what clustering is.	15:31:44
13	Q. Uh-huh.	15:31:46
14	A. And I know what standard of errors are in	15:31:46
15	the context of your question, which I thought is	15:31:49
16	what we were talking about. But I think you're	15:31:52
17	talking about some kind of standard of errors that	15:31:54
18	apply to the Figure 23 that you're calling	15:31:57
19	clustering standard of errors, which is something	15:31:59
20	that I'm not familiar with.	15:32:01
21	Q. Would it be appropriate to use clustering	15:32:02
22	in performing your regression analysis?	15:32:05
23	A. I don't see why. I don't see why. It's	15:32:18
24	possible that some argument can be made that it	15:32:22
25	doesn't come to the front of my brain, but off the	15:32:24

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1 top of my head -- by "clustering," I think you mean 15:32:27  
2 using subsets of the data. And I think that's a 15:32:32  
3 consequence of nothing in the air that would rather 15:32:34  
4 be built into the model, rather than during 15:32:37  
5 progression of subsets. 15:32:39

6 Q. Are any of the data series you used 15:32:42  
7 correlated? 15:32:43

8 A. Every one of these variables is correlated. 15:32:44  
9 Every variable in the equation has some degree of 15:32:46  
10 correlation. 15:32:52

11 Q. Well, why -- okay. And -- did your conduct 15:33:16  
12 regression pick up any lawful agreement -- by 15:33:16  
13 "lawful," I mean talking about that unilateral 15:33:20  
14 policy, for example, or some joint corroboration 15:33:23  
15 that started in 2005? 15:33:26

16 A. Yes, it will pick up anything that is 15:33:32  
17 applicable to that period of time when the thing is 15:33:34  
18 turned on. So it's turned on for 2005, 2009, a 15:33:37  
19 little different for Pixar and Lucasfilm. But -- 15:33:41  
20 but unless you have controls in this equation to 15:33:43  
21 eliminate the effects of these other material 15:33:48  
22 issues -- 15:33:51

23 Q. Okay. 15:33:51

24 A. -- they are going to be picked up by that 15:33:51  
25 conduct variable. 15:33:53

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1 Q. And you haven't eliminated those effects, 15:33:54  
2 have you? 15:33:56

3 A. I think I have. I've got quite a few 15:33:56  
4 controls in the equation and -- 15:33:58

5 Q. But the -- 15:33:58

6 A. -- you'll have to suggest to me exactly 15:33:58  
7 what is not included. 15:34:01

8 Q. If the Google arrangement, vis-a-vis, 15:34:02  
9 Intel, turns out to be unilateral, how have you 15:34:07  
10 controlled for that in 2005? 15:34:10

11 A. Yeah, I have not done that. 15:34:18

12 Q. Are you assuming that the error terms in 15:34:20  
13 your conduct equation are independent across 15:34:25  
14 individuals? 15:34:27

15 A. Independent across individuals? I think -- 15:34:36  
16 are you thinking about intertemporal dependence? 15:34:55  
17 I'm not sure -- so there's two -- maybe there's a 15:34:56  
18 clustering that you're getting at or maybe it's 15:35:00  
19 intertemporal dependence. 15:35:02

20 Let me interpret your equation as -- your 15:35:02  
21 -- your question, as if you were referring to 15:35:04  
22 intertemporal -- inter -- inter -- inter -- 15:35:08  
23 intertemporal dependence. I know what to answer. 15:35:08  
24 Intertemporal dependence. 15:35:13  
25 So if you look at these live variables, 15:35:13



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1       agreements. And these other variables are meant to       15:55:04  
2       control for things that are going on during that       15:55:08  
3       period of time.       15:55:10  
4       BY MR. PICKETT:       15:55:10  
5             Q. But the attribution to the cold calls is       15:55:10  
6       not supported by any data, correct?       15:55:15  
7             MR. GLACKIN: Objection, vague.       15:55:18  
8             THE WITNESS: I disagree with that --       15:55:20  
9       BY MR. PICKETT:       15:55:22  
10            Q. What data do you have -- (Cross-talking.)       15:55:22  
11            MR. GLACKIN: Let him finish his answer.       15:55:23  
12            THE WITNESS: The contact variable is being       15:55:26  
13       turned on during the period of time which the       15:55:28  
14       anti-cold calling agreements were in place and       15:55:31  
15       turned off when those anti-cold calling agreements       15:55:33  
16       were not in place.       15:55:36  
17            And that's a sense of it picking up the       15:55:37  
18       impact of the anti-cold calling agreements.       15:55:39  
19       BY MR. PICKETT:       15:55:44  
20            Q. Without reference to the actual number of       15:55:44  
21       cold calls, without reference to the actual       15:55:46  
22       information flow that's informing the price       15:55:48  
23       discovery process?       15:55:52  
24            MR. GLACKIN: Objection, compound and       15:55:53  
25       vague.       15:55:54

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1 THE WITNESS: The answer -- already, we 15:55:56  
2 obviously -- if we had the cold calling data, it 15:55:57  
3 would be very useful, very interesting, and we could 15:56:00  
4 pursue the price discovery model in an interesting 15:56:02  
5 and intervening way. Absent that, we've done the 15:56:06  
6 very best that can be possibly be done, which is to 15:56:08  
7 use the conduct variable. 15:56:10

8 BY MR. PICKETT: 15:56:13

9 Q. And so your conduct regression would pick 15:56:13  
10 up any unilateral agreements -- I'm sorry, any 15:56:15  
11 unilateral policies that started in 2005 not to cold 15:56:20  
12 call, correct? 15:56:24

13 MR. GLACKIN: Objection, asked and answered 15:56:26  
14 again. 15:56:27

15 THE WITNESS: To the extent that those 15:56:28  
16 unilateral agreements suppress wages, the answer is 15:56:29  
17 yes. 15:56:33

18 BY MR. PICKETT: 15:56:33

19 Q. Well, wouldn't they, by your hypothesis? 15:56:33

20 A. Well, you had this hypothesis that the cold 15:56:36  
21 call would be going to somebody else. 15:56:38

22 Q. I do, yes. 15:56:40

23 A. So the point is that -- (Cross-talking.) 15:56:42

24 Q. In your world, wouldn't your conduct 15:56:44  
25 regression pick up unilateral policies starting in 15:56:47

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1	A. Well, these --	16:00:00
2	Q. -- during the class periods?	16:00:00
3	A. Those would be anecdotes, rather than a	16:00:00
4	general statement, but --	16:00:00
5	Q. It's relevant data, isn't it?	16:00:00
6	MR. GLACKIN: Please finish your answer.	16:00:00
7	THE WITNESS: It's relevant, but not	16:00:00
8	decisive.	16:00:00
9	BY MR. PICKETT:	16:00:00
10	Q. Do you have decisive data?	16:00:00
11	A. No, I do not.	16:00:00
12	Q. Let me ask you about paragraph 76 on page	16:00:00
13	32 of the --	16:00:00
14	THE REPORTER: One more time, off the	16:00:00
15	record. Sorry.	16:00:00
16	THE VIDEOGRAPHER: Okay. Off the record.	16:00:00
17	It's 5:47.	16:00:00
18	(Recess taken.)	17:49:52
19	THE VIDEOGRAPHER: Back on the record.	17:49:52
20	It's 5:50.	17:50:08
21	BY MR. PICKETT:	17:50:14
22	Q. So looking at paragraph 76, you state that	17:50:14
23	"Agreements that reduce the number of bilateral	17:50:18
24	bargains further slow the price discovery process	17:50:21
25	and effect the whole sequence of actual	17:50:24

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1 transactions." 17:50:26

2 Is your opinion that the challenged 17:50:27

3 agreements reduced the number of bilateral bargains 17:50:29

4 during the class period? 17:50:32

5 A. Well, I include bargains, conduct in 17:50:35

6 general. And my opinion is that the anti-cold 17:50:38

7 calling agreements did reduce the number of 17:50:43

8 contacts. 17:50:45

9 Q. So a bargain is not an agreement, it's a -- 17:50:46

10 it's a discussion about potential agreements? 17:50:49

11 MR. GLACKIN: Objection, argumentative, 17:50:54

12 mischaracterizes. 17:50:55

13 THE WITNESS: It's a communication -- I 17:50:57

14 want it to be defined as a communication that 17:50:57

15 reveals information about possibilities. 17:51:00

16 BY MR. PICKETT: 17:51:04

17 Q. And -- 17:51:04

18 A. And the more that that goes on, the more 17:51:08

19 rapidly will be the finding of the equilibrium 17:51:09

20 market. 17:51:12

21 Q. How do you know that other cold calls to 17:51:12

22 other employers and employees didn't substitute? 17:51:16

23 A. This one we've been on before, too. So the 17:51:23

24 answer is, I -- I don't have evidence on that. 17:51:26

25 Q. So you don't know whether the price 17:51:30

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1 discovery process was further slowed or not? 17:51:34

2 A. But we will leave that to the regression. 17:51:37

3 This is -- lays all down the framework, the same 17:51:39

4 thing we've been saying over and over. It's to set 17:51:44

5 the framework that suggests that there will be an 17:51:46

6 impact on price formation and will go to the data to 17:51:47

7 decide whether it's actually there. 17:51:52

8 MR. GLACKIN: So I -- since you seem to be 17:51:54

9 moving on, I want to raise something that came up 17:51:56

10 over the break, which is hat Dr. Leamer needs to 17:51:59

11 leave here at 7:00 o'clock, to go on an airplane and 17:52:02

12 go. And I don't think this deposition needs to go 17:52:05

13 beyond 7:00. 17:52:07

14 MR. PICKETT: I'll try, but I can't 17:52:07

15 guaranty. And if we need to adjourn, we can 17:52:09

16 reconvene. 17:52:10

17 MR. GLACKIN: I just want to be clear, 17:52:11

18 we're going to oppose reconvening after that. 17:52:13

19 MR. PICKETT: I want to tell you that if I 17:52:15

20 have questions, I'll go to court to try and get the 17:52:17

21 right to do that. (Cross-talking.) 17:52:20

22 MR. GLACKIN: Well, we made -- 17:52:21

23 (Cross-talking.) 17:52:21

24 MR. PICKETT: Let's not waste the time now. 17:52:22

25 MR. GLACKIN: We made him available for 17:52:22

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1 more than seven hours as a courtesy, okay, to try to 17:52:24  
2 accommodate you. We gave you the option of doing 17:52:26  
3 this over two days -- (Cross-talking.) 17:52:29  
4 MR. PICKETT: Let's not argue on the 17:52:30  
5 record. (Cross-talking.) The longer you argue, the 17:52:30  
6 less likely I finish. 17:52:30  
7 BY MR. PICKETT: 17:52:30  
8 Q. Paragraph 77 of your report is my next 17:52:30  
9 series of questions. There you state that, "A new 17:52:38  
10 employer" -- it's really in paragraph 78, the point 17:52:48  
11 I need. You state about five lines down that, "If 17:53:25  
12 neither party to the new employment contract is 17:53:29  
13 incented to worry about the destruction," and you 17:53:31  
14 talk about a form of creative destruction, "there 17:53:34  
15 will be too much destruction, the consequence of 17:53:37  
16 which is too little creation." Do you see that 17:53:38  
17 statement? 17:53:40  
18 A. I do see that. 17:53:41  
19 Q. Do you agree that a new employer would be 17:53:44  
20 concerned about the destruction of a partner's 17:53:47  
21 asset, if they are a partner in a joint 17:53:49  
22 collaboration? 17:53:53  
23 A. It could be, yes. 17:53:54  
24 Q. And if they were collaborating on a 17:53:55  
25 project, the destruction of the partner's asset 17:53:57

1 STATE OF CALIFORNIA ) ss:  
2 COUNTY OF MARIN )  
3

4 I, ASHLEY SOEVYN, CSR No. 12019, do hereby  
5 certify:

6 That the foregoing deposition testimony was  
7 taken before me at the time and place therein set  
8 forth and at which time the witness was administered  
9 the oath;

10 That the testimony of the witness and all  
11 objections made by counsel at the time of the  
12 examination were recorded stenographically by me,  
13 and were thereafter transcribed under my direction  
14 and supervision, and that the foregoing pages  
15 contain a full, true and accurate record of all  
16 proceedings and testimony to the best of my skill  
17 and ability.

18 I further certify that I am neither counsel for  
19 any party to said action, nor am I related to any  
20 party to said action, nor am I in any way interested  
21 in the outcome thereof.

22 IN THE WITNESS WHEREOF, I have transcribed my  
23 name this 29th day of October, 2012.  
24

25 \_\_\_\_\_  
ASHLEY SOEVYN, CSR No. 12019



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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA, SAN JOSE DIVISION  
  
IN RE: HIGH-TECH EMPLOYEE No. 11-CV-2509-LHK  
ANTITRUST LITIGATION

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CONFIDENTIAL PORTIONS DESIGNATED

Continued Videotaped Deposition of EDWARD E.  
LEAMER, PH.D., Volume 3, taken at the offices  
of O'Melvey & Myers LLP, Two Embarcadero Center,  
Suite 2800, San Francisco, California commencing  
at 9:03 a.m., on Monday, November 18, 2013,  
before Leslie Rockwood, RPR, CSR No. 3462.

JOB No. 1765129  
PAGES 857 - 1169

1 Adobe employees?

2 A. Well, that's a different question than the one I  
3 was trying to answer.

4 Q. Since I couldn't get an answer to that one, I  
5 changed the question. 13:43:17

6 A. So the question I was trying to answer, and in  
7 order to answer it, I need more information, is my damage  
8 estimate inappropriately dependent upon the legal  
9 decision on the part of the firm X. And in order to  
10 answer that, I need to know what the hypothetical has to 13:43:34  
11 say about the before-and-after period.

12 You gave me explicit hypothetical for the during  
13 period, but the statistics is a way of contrasting what  
14 happened to the during period with the before and after.

15 In other words, if there were agreements in 13:43:51  
16 play, legal agreements at play before and after as well  
17 as during, then the during effect of that legal agreement  
18 is going to be absorbed by the statistical analysis.  
19 What you're identifying is what's different in that  
20 period of time. 13:44:06

21 Q. Right.

22 A. So if the hypothetical that you're imagining is  
23 magically there was one other agreement that started on  
24 exactly that day and ended that day, and absent other  
25 agreements, legal or otherwise, that were impacting 13:44:20

1 information flow, then yes, that's going to be absorbed  
2 by the conduct variable.

3 Q. So just to back off then, your model cannot  
4 distinguish the impact of a do not cold-call agreement  
5 from a unilateral decision by a company not to cold-call 13:44:38  
6 a defendant?

7 MR. GLACKIN: Object to the form.

8 THE WITNESS: I don't agree with that for the  
9 reasons I indicated, which is that if there are similar  
10 agreements put in place before and after, that 13:44:49  
11 establishes the comparison that you're going to use for  
12 deciding whether the conspiracy period is abnormal or  
13 not.

14 Q. BY MR. RILEY: Okay. Let's go back --

15 A. If your hypothetical I agree, but your 13:45:03  
16 hypothetical's a very strange one in which there were no  
17 other agreements before, after, or during, except for  
18 this one that happened to be exactly coterminous with all  
19 the other agreements.

20 Q. Well, let's not make it exactly coterminous. 13:45:15  
21 And again, I'm trying to understand your theory here.

22 The Apple-Adobe agreement, for purposes of your  
23 analysis, was in effect from 2005 to 2009, I think.

24 A. That's correct.

25 Q. Okay? So during that period, I want you just to 13:45:29

1 assume that from 2007 to 2008, another company,  
2 company X, made a unilateral decision not to cold-call  
3 Adobe employees.

4 In your model, the impact of that decision by  
5 company X not to cold-call Adobe employees would be 13:45:58  
6 reflected in the conduct variable that you associate with  
7 the agreement between Apple and Adobe.

8 A. I tried to explain why that's not necessarily  
9 the case. It is the case if you have absolutely that one  
10 agreement. If you hypothetically have a single agreement 13:46:17  
11 that's not quite coterminous but almost coterminous with  
12 the period from 2005 to 2009.

13 But if there were other agreements that were  
14 present in the before and after period, that's going to  
15 be absorbed within the analysis in which you compare the 13:46:32  
16 during period with the before and after.

17 So if we're going to go down that route, we're  
18 going to have to collect all the legal agreements, not  
19 just ones that happen to be in the midst of the  
20 conspiracy period from 2005 to 2009. 13:46:46

21 Q. You keep saying we will have to collect all the  
22 legal agreements. And what do you mean? I'm referring  
23 to a unilateral decision.

24 A. I'm sorry, I didn't mean an agreement.  
25 Unilateral decisions. 13:46:57

1 Q. And you made no effort to control for the  
2 unilateral decisions of firms not to cold-call a  
3 defendant company?

4 A. Well, I think the better way of saying it is the  
5 assumption that underlies my regression is that the 13:47:10  
6 activity of unilateral actions was present in the before  
7 period, present in the during, and present in the after  
8 period at about the same frequency, except in the sense  
9 of the variables that are controlling for differences in  
10 market conditions. 13:47:28

11 Q. But you didn't critically examine that  
12 assumption that there was similar activity before,  
13 during, and after the conduct period?

14 MR. GLACKIN: Object to the form.

15 THE WITNESS: I was provided no information with 13:47:43  
16 regard to these other agreements or other unilateral  
17 actions.

18 Q. BY MR. RILEY: So you didn't receive any  
19 material about other unilateral decisions not to  
20 cold-call into defendant companies? 13:47:56

21 A. I -- I saw what I would consider to be anecdotes  
22 and what I need -- what I would need is a data set, not a  
23 couple of anecdotes.

24 Q. Are you aware that during this period, there  
25 were alleged agreements, for example, between Intel and 13:48:16

1 Apple which are not being challenged in this case?

2 A. Yes, I am aware.

3 Q. And those agreements occurred during the conduct  
4 period; correct?

5 A. That's correct.

13:48:34

6 Q. But your model makes no allowance for the fact  
7 that there may have been an agreement between Apple and  
8 Intel that had an impact on the flow of information to  
9 Apple employees?

10 MR. GLACKIN: Object to the form.

13:48:50

11 THE WITNESS: Except in the sense that I've  
12 already indicated, which is if there were comparable  
13 agreements struck in place prior to the conspiracy period  
14 and after the conspiracy, then that's all absorbed in the  
15 statistical analysis.

13:49:04

16 Q. BY MR. RILEY: But as between Intel and Apple, I  
17 want you to assume that that agreement didn't come into  
18 effect until during the conduct period.

19 A. No, I didn't mean the specific agreement. I  
20 meant the sets of agreement that are not captured in my  
21 model. Not agreements, but unilateral decisions that  
22 were present before and after. In other words, I'm just  
23 saying that what you want to do is to somehow make the  
24 comment that the model inappropriately absorbs these  
25 legal actions. And I'm saying that might be, but it

13:49:15

13:49:36

1 might not be, because you'd have to look at the before  
2 and after periods.

3 Q. And that's something you didn't do. You didn't  
4 look at the before and after periods with regard to other  
5 legal actions that may have restricted the flow of 13:49:53  
6 information to these companies.

7 A. Well, I didn't see any evidence that these other  
8 agreements were specific to the periods of -- in which  
9 the conspiracy occurred.

10 Q. In your report, your first report, you actually 13:50:09  
11 include a diagram that shows this agreement between Apple  
12 and Intel.

13 A. That's correct.

14 Q. And that's at page 10, Figure 2.

15 A. I'm aware that that was part of that display. 13:50:30

16 Q. Why did you put that in there if, in fact, there  
17 is no challenge to the agreement between Apple and Intel?

18 A. Say that again? Why did I put it in if there's  
19 no challenge to that agreement?

20 Q. Yes.

21 A. Well, this is attorneys telling me what they  
22 wanted me to study. This chart didn't come from me. I  
23 think it came from the Department of Justice, but perhaps  
24 not. But anyway, this is what the attorneys told me to  
25 consider. 13:50:58

1 Q. And so when you constructed your model, you  
2 assumed a contract between Apple -- a no cold-call  
3 agreement between Apple and Intel?

4 A. No, I would not have done anything differently  
5 because I've got -- I still have got the chain. If you 13:51:10  
6 break the chain, then maybe there's an issue. As long as  
7 there's a chain of interlinked firms, then this thing is  
8 going to leak out to all the firms involved in that  
9 conspiracy.

10 Q. So, for example, one could eliminate several of 13:51:26  
11 the actual bilateral agreements, and in your view, the  
12 impact would be the same --

13 A. No.

14 Q. -- of the class?

15 A. No, the impact would be less because the 13:51:36  
16 information flow is -- is not being -- it's being legally  
17 reduced, not illegally reduced, according to your  
18 hypothetical.

19 Q. But if you, for example, were to eliminate the  
20 agreement between Intel and Pixar, that would have no 13:51:58  
21 impact on your damages analysis?

22 A. Well, the damage analysis that I've made doesn't  
23 refer at all to this bilateral relationships. It treats  
24 the conspiracy as a single overriding fact, and I'm just  
25 making a presumption that that overriding fact requires 13:52:23



1 STATE OF CALIFORNIA ) ss:

2 COUNTY OF MARIN )

3  
4 I, LESLIE ROCKWOOD, CSR NO. 3452, do hereby  
5 certify:

6 That the foregoing deposition testimony was  
7 taken before me at the time and place therein set forth  
8 and at which time the witness was administered the oath;

9 That testimony of the witness and all objections  
10 made by counsel at the time of the examination were  
11 recorded stenographically by me, and were thereafter  
12 transcribed under my direction and supervision, and that  
13 the foregoing pages contain a full, true and accurate  
14 record of all proceedings and testimony to the best of my  
15 skill and ability.

16 I further certify that I am neither counsel for  
17 any party to said action, nor am I related to any party  
18 to said action, nor am I in any way interested in the  
19 outcome thereof.

20 IN WITNESS WHEREOF, I have subscribed my name  
21 this 20th day of November, 2013.

22  
23  
24 \_\_\_\_\_  
25 LESLIE ROCKWOOD, RPR, CSR NO. 3462

Page 1169

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

IN RE: HIGH-TECH EMPLOYEE )  
 ) No. 11-CV-2509-LHK  
ANTITRUST LITIGATION )  
----- )

VIDEOTAPED DEPOSITION OF EDWARD E. LEAMER Ph.D.  
San Francisco, California  
Thursday, December 19, 2013  
Volume IV

Reported by:

CARLA SOARES

CSR No. 5908

Job No. 1784254

Pages 1170 - 1489

Page 1170

1 reflection of employment by the firm that she's 07:54:06  
2 studying?  
3 MR. GLACKIN: Object to the form.  
4 BY MR. RILEY:  
5 Q Is that right? 07:54:11  
6 A That is not entirely right because there's  
7 another variable, but it's a share available and an  
8 absent variable.  
9 Q Which variable is that?  
10 A So we'll look at Exhibit 3. Row 27 has a 07:54:27  
11 variable that represents the rate of hiring by this  
12 particular employer, which is the number of new  
13 hires in the firm divided by the number of employees  
14 in the previous year.  
15 Q And that's variable 27 which is in the 07:54:48  
16 original Leamer model, correct?  
17 A That's correct.  
18 Q Now, you criticized Dr. Stiroh for  
19 misunderstanding your new hire variable, which is  
20 the total hiring by the seven defendants, as 07:55:12  
21 reflecting an industry effect as opposed to an  
22 employer effect, right?  
23 A I guess that's correct, yes.  
24 Q Well, let's not guess. Let's turn to  
25 paragraph 121. You say, "Dr. Stiroh admitted at 07:55:26

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1 deposition that she has made a fundamental error by 07:55:43  
2 believing that the total new hires variable controls  
3 for effects of the industry on compensation when, in  
4 fact, it only contains data from the defendants and  
5 is identified in my prior work as an employer effect 07:55:58  
6 variable."

7 So again, you're saying that in your prior  
8 work, variable 28, the total number of new hires,  
9 was identified as an employer effect variable; is  
10 that right? 07:56:14

11 A Well, it's between the two obviously.  
12 It's not an industry effect because it's specific to  
13 the seven defendants, but it's not a defendant  
14 effect because it applies to all seven defendants.

15 Q That's not my question. 07:56:29  
16 My question is, you're claiming that in  
17 your prior work, you identified the total new hire  
18 variable as an employer effect variable. That's  
19 what you say in that sentence, correct?

20 A That's correct. That's what it says in 07:56:46  
21 the sentence, yes.

22 Q But, in fact, you identified the total  
23 number of new hires in your October report as an  
24 industry effect, didn't you?

25 A I don't recall exactly the answer to that 07:56:59

1 question. It says what it says here in the -- in 07:57:01  
2 paragraph 121.

3 Q Are you not comfortable with what it says  
4 in that paragraph?

5 A Well, as I said before, there are three 07:57:08  
6 different kinds of variables. I think we ought to  
7 be careful in using the word "employer" to -- in a  
8 way which distinguishes the seven employers from the  
9 individual employers. So the language is a little  
10 ambiguous here. 07:57:29

11 Q But this is your language.

12 A Correct.

13 Q You wrote this.

14 A Yeah. As I reread this, I saw the  
15 ambiguity in that sentence. 07:57:38

16 Q In fact, that sentence is false because in  
17 your October 2013 reply report, you identified the  
18 hiring variable, the total new hiring variable, as  
19 an industry effect, didn't you?

20 A Are we talking about language or -- 07:57:56

21 Q Yes, language. Language you used in your  
22 report.

23 A I don't recall the specific language. But  
24 the reality is there are three different kinds of  
25 variables. 07:58:04

1 disruptive cold calls can be. 08:49:44

2 BY MR. RILEY:

3 Q Dr. Leamer, you rely on your conduct

4 regression to show that the alleged do-not-cold-call

5 agreements had an impact on the price discovery 08:50:38

6 process and therefore compensation, correct?

7 A I think that's correct, although you

8 are -- you're describing kind of a chain of logic

9 that I'm not sure that I need to agree to.

10 So I'm using the regression to identify 08:51:05

11 the amount of undercompensation that occurred during

12 the period of time when these agreements were in

13 place.

14 Q But you're using the regression to show

15 that the do-not-cold-call agreements had an impact 08:51:23

16 on compensation, correct?

17 A I'm using it to measure the impact.

18 That's correct.

19 Q You're using your regression to show that

20 the agreements in your view, in fact, had an impact? 08:51:37

21 A Well, I tried to make clear in my

22 discussion that there's a distinction between

23 hypothesis testing and estimation.

24 And I don't know if that's where you're

25 going with this question, but I think of my job as 08:51:50

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1 primarily an estimation job, which is to determine 08:51:54  
2 to the best of my ability the amount of  
3 undercompensation that has occurred here and to rely  
4 primarily on the documentary evidence that suggests  
5 that these agreements were in place and intended to 08:52:06  
6 have an impact on compensation, and that the  
7 hypothesis that there was absolutely no impact on  
8 compensation with these secret agreements had -- let  
9 me put it back. The hypothesis that these secret  
10 agreements had absolutely no impact on compensation, 08:52:31  
11 I don't regard that as a very plausible thing.

12 So my job is not to use the data to make a  
13 determination of innocence or guilt but rather to  
14 estimate the amount of damages that were created by  
15 these illegal agreements. 08:52:47

16 Q So you're testifying you do not rely on  
17 your conduct regression to show that these  
18 agreements had an impact on compensation?

19 A Well, that's an overstatement. I'm just  
20 trying to say I pursued both of these tasks, both 08:53:00  
21 the hypothesis testing task that you're referring to  
22 now and the estimation task. But I think of my task  
23 as primarily an estimation task.

24 On the other hand, I've done -- studied  
25 the hypothesis testing as well and have a lengthy 08:53:15

1 discussion of that in my report, suggesting that 08:53:17  
2 even if you had no other evidence about the  
3 existence of these agreements, that still the data  
4 would be supportive of the conclusion that the  
5 agreements had a suppressive effect on compensation. 08:53:31

6 Q In your prior deposition at page 413, line  
7 21, through 414, line 7, you were asked the  
8 following questions:

9 "Question: How do you know that other  
10 cold calls to other employers and employees 08:53:49  
11 didn't substitute?

12 "Answer: This one we've been on before,  
13 too. So the answer is I -- I don't have  
14 evidence on that.

15 "Question: So you don't know whether the 08:54:03  
16 price discovery process was further slowed  
17 down or not.

18 "Answer: But we will leave that to the  
19 regression. This is -- lays all down the  
20 framework. The same thing we've been saying 08:54:18  
21 over and over. It is to set the framework  
22 that suggests that there will be an impact on  
23 price formation, and we'll go to the data to  
24 decide whether it's actually there."

25 Is that your testimony? 08:54:33



1           A    That sounds like what I might have said,           08:54:34

2    yes.

3 Q So in that testimony, you're saying you  
4 will go to the data in your regression analysis to  
5 determine whether there was an actual impact on 08:54:43  
6 compensation?

7           A    That sentence sounds like hypothesis  
8    testing.  I would admit that, yes.

9	Q So you, in fact, used your regression, at	
10	least originally used your regression to do a	08:54:55
11	hypothesis testing?	

12           A     Well, I still do use the regression in  
13     support of the conclusion that there are damages  
14     here.  So I'm doing both the hypothesis testing  
15     exercise and the estimation exercise. 08:55:10

16 Q But in your reply report, you testified  
17 that, in fact, there is no hypothesis testing  
18 problem presented by this case, correct?

19 A Well, I don't think that hypothesis  
20 testing is a critical issue here. That's correct. 08:55:28

21 Q So on the one hand you're saying you used  
22 the regression to do hypothesis testing, and then on  
23 the other hand you're saying there really is no  
24 hypothesis testing problem here.

25	A	So the -- by the words "hypothesis	08:55:42
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1 testing," let's be clear what that's a reference to. 08:55:45  
2 It's exploring the hypothetical that these  
3 agreements had absolutely no impact on compensation.  
4 Exactly zero coefficients in the regression.

5 And there are some settings in which that 08:55:56  
6 very simple hypothesis makes sense, but it doesn't  
7 make sense in this setting.

8 So the issue isn't whether the number is  
9 zero. The number (sic) is whether it's a small  
10 positive, a large positive, or maybe a small 08:56:13  
11 negative.

12 Your side would like to think that somehow  
13 these agreements had the opposite effect of actually  
14 making the employees better off.

15 So the data is primarily -- if you want to 08:56:25  
16 talk about a hypothesis that would be relevant, it's  
17 that the impact is so small that it can be treated  
18 as if it were zero. Say whatever that number was,  
19 less than a tenth of a tenth percent perhaps.

20 Q Dr. Leamer, in your deposition testimony, 08:56:43  
21 your first deposition that I quoted, you implied  
22 that you were using the regression -- conduct  
23 regression to do hypothesis testing, correct?

24 MR. GLACKIN: Object to the form.

25 THE WITNESS: Well, if you're referring to 08:56:55

1 seems so implausible that we don't need to entertain 08:58:04  
2 that.

3 Q So you begin your data analysis with the  
4 presumption that the agreements had an impact on  
5 compensation? 08:58:14

6 A That actually is not the case. I begin  
7 with an open mind -- when you say "have an impact,"  
8 it could be either positive or negative. There's no  
9 restriction on the sign. I'll let the data help me  
10 determine what the number is. 08:58:27

11 Q So you actually begin your data analysis,  
12 as you say, with an open mind. You haven't  
13 prejudged the issue about whether these agreements  
14 had an impact one way or the other, correct?

15 A Well, make sure you say "one way or the 08:58:39  
16 other," because I think positive or negative makes  
17 sense to me. If you want to test a hypothesis that  
18 the impact is positive and not negative, that's an  
19 appropriate hypothesis. But the hypothesis that  
20 it's exactly zero, that's pretty farfetched. It's 08:58:52  
21 inappropriate to the circumstance.

22 Q In this case, Dr. Leamer, you reject the  
23 use of statistical significance, correct?

24 A That's not correct.

25 Q You embrace the use of statistical 08:59:19

1 significance in this case? 08:59:21

2 A I describe how it should be done  
3 correctly.

4 Q In your reports, you repeatedly use the  
5 conventional 5 percent statistical significance 08:59:29  
6 level, correct?

7 A Well --

8 MR. GLACKIN: Object to the form.

9 THE WITNESS: What do you mean by "used"?

10 BY MR. RILEY: 08:59:39

11 Q You report it, correct?

12 A They are the standard things that come  
13 rolling out of computer packages. But that table  
14 that you're referring to is a whole bunch of  
15 numbers. Every one of those numbers has to be 08:59:50  
16 interpreted with some wisdom.

17 So the fact that a coefficient is  
18 statistically significant, that means something to  
19 me, and it's appropriate to have that in the  
20 printout. 09:00:02

21 Q In fact, you relied on statistical  
22 significance in your critique of various issues in  
23 this case.

24 A A variable with a large T value estimated  
25 with accuracy is different from a variable that 09:00:13

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1 doesn't have that feature. 09:00:17

2 In particular, the variable that we were  
3 talking about before, the fact that it has a very  
4 high T value makes me very reluctant to take it out  
5 of the equation. 09:00:27

6 Q So I think the answer to my question is  
7 yes, you did, in various aspects of your work in  
8 this case, rely on statistical significance,  
9 correct?

10 A But let's make sure that we get exactly 09:00:39  
11 clear what we mean by that.

12 One is it determines whether a coefficient  
13 is exactly zero or not. That's a hypothesis  
14 testing.

15 To me, the word "statistically 09:00:53  
16 significance" isn't about hypothesis testing. It's  
17 about the measurability of an effect. A highly  
18 significant -- statistically significant coefficient  
19 doesn't mean that variable is important, which is  
20 what you and I think what the word "significant" 09:01:06  
21 must mean. It means its effect is measurable.

22 I'll use that word always to signify that  
23 comment -- that interpretation, not to suggest  
24 hypothesis testing.

25 Q But in that sense, you have reported and 09:01:20

```
1 | relied on statistically significant variables | 09:01:22
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2 |        throughout your work in this case, correct?

3 | A Well, certainly in a relative sense. I

4 indicated that because I've got that old result

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5 | which says the variable with the biggest T is the
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6 most resistant variable in the sense of if you

7 change the model, it's not going to have a big

8 impact on that variable.

9 So in a relative sense, there's no

10 question that the T values mean something. In an 09:01:45

11 absolute sense, it has to be interpreted very

12	carefully.
----	------------

13 Q Let's go back to your December 2012 reply

14 report at paragraph 107.

15 MR. GLACKIN: This would be Tab B. 09:02:03

16 THE WITNESS: Which tab?

17 MR. GLACKIN: Tab B.

18 THE WITNESS: I don't have a Tab B.

19 MR. GLACKIN: Sorry. It should be the

20 | fourth document. | 09:02:10

21 THE WITNESS: I see that, yes.

22 MR. GLACKIN: Sorry, George. Which

23	paragraph?
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24 MR. RILEY: Paragraph 107 in the

25	December 10th, 2012, reply brief of Dr. Leamer --	09:02:23
----	---	----------

1 I, the undersigned, a Certified Shorthand  
2 Reporter of the State of California, do hereby  
3 certify:

4 That the foregoing proceedings were taken  
5 before me at the time and place herein set forth;  
6 that any witnesses in the foregoing proceedings,  
7 prior to testifying, were placed under oath; that a  
8 verbatim record of the proceedings was made by me  
9 using machine shorthand which was thereafter  
10 transcribed under my direction; that the foregoing  
11 is an accurate transcription thereof; that before  
12 completion of the deposition, review of the  
13 transcript was not requested. If requested, any  
14 changes made by the deponent (and provided to the  
15 reporter) during the period allowed are appended  
16 hereto.

17 I further certify that I am neither  
18 financially interested in the action nor a relative  
19 or employee of any attorney or party to this action.

20 IN WITNESS WHEREOF, I have this date  
21 subscribed my name.

22  
23 Dated: January 3, 2014



24  
25 CARLA SOARES

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